

Appl. No. : 10/619,333  
Filed : July 14, 2003

### COMMENTS

Claims 1-37 remain pending in the present application, Claims 1-5, 14-28, and 34-37 having been withdrawn from consideration, Claims 6-13, and 29-33 presently under consideration.

In response to the Office Action mailed July 20, 2005, Applicants respectfully request the Examiner to reconsider the above-captioned application in view of the following comments.

#### Claims 6-13 and 29-33 Fully Comply With The Requirements of 35 U.S.C. § 112, First Paragraph

Claims 6-13 and 29-33 stand rejected under 35 U.S.C. § 112, first paragraph, the Examiner maintaining that the language therein is not supported by the specification in a manner that would reasonably convey, to one of ordinary skill in the art at the time of the invention, that the inventors had possession of the claimed invention. Applicants respectfully traverse the present rejection.

At page 2 of the outstanding Office Action, the Examiner indicates that the phrase at issue is “a control device to detect a first intake device and a second intake device and to compare and determine the abnormality/insufficiency of the amount of air” is not disclosed in the specification. Firstly, Applicants would like to point out that none of the claims recite that the first and second intake devices are compared to determine an abnormality.

Rather, Claim 6 recites a “propulsion system for a watercraft comprising an internal combustion engine that defines a combustion chamber, a first intake device configured to deliver primary air to the combustion chamber, a first valve configured to regulate an amount of the primary air, a control device configured to set the first valve to a desired position, an operating unit configured to provide the control device with the desired position, a second intake device being configured to deliver secondary air to the combustion chamber, and a second valve configured to control a flow of secondary air to combustion chamber, **the control device being configured to determine whether an abnormal condition occurs in setting the first valve to the desired position**, the control device being configured to determine whether the amount of the first air is insufficient, the control device being configured to control the second valve to allow the secondary air to move to the combustion chamber when the control device determines that the abnormal condition occurs and the amount of the first air is insufficient.” (Emphasis added).

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Similarly, Claim 29 recites a “control method for controlling a watercraft propulsion system that has an engine, comprising regulating an amount of air to the engine with a regulating valve, setting the regulating valve to a desired regulating position, providing the desired regulating position to an operating unit, **determining whether an abnormal state occurs in setting the regulating valve to the desired regulating position**, determining whether the amount of the air is insufficient, and delivering a supplementary amount of air to the engine when the occurrence of the abnormal state is determined and the insufficient condition of the air is determined” (Emphasis added).

The specification of the present Application sets forth a comprehensive explanation of the determination of an abnormality in the setting of the first valve to the desired position. For example, at paragraph [00145] of the present Application discloses the following exemplary but non-limiting embodiment:

At the step S10, the ECU 90, **calculates an absolute value of a difference between the current throttle valve position command  $\theta_{tk}$  and a current actual throttle valve position  $\theta_{rk}$ , and determines whether the absolute value of the difference is equal to or greater than a preset threshold of abnormal state  $\theta_a$  that separates an abnormal state from the normal state.** If the determination at the step S10 is negative, the ECU 90 recognizes that the actual throttle valve position  $\theta_r$  is properly following the throttle valve position command  $\theta_t$ , or that a deviation of the actual throttle valve position  $\theta_r$  from the throttle valve position command  $\theta_t$  is small enough to be neglected. The routine 336 goes to a step S11. . .

(Emphasis added).

Applicants submit that in light of at least this disclosure in the present Application, one of ordinary skill in the art would understand that one way to detect an abnormality is to calculate a difference between a desired valve position and an actual valve position. Then compare that difference with a predetermined value. Whether or not the value of the difference is above or below the predetermined value can be used to determine whether an abnormality exists.

With respect to the recitation of determining if the first air amount is insufficient, Applicants respectfully directs the examiner to paragraph [00156] which discloses the following exemplary but non-limiting embodiment:

The ECU 90, at the step S16, determines whether the current actual throttle valve position  $\theta_{rk}$  is equal to or greater than a preset threshold of actual throttle valve position  $\theta_{rp}$  that separates throttle valve position that is

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**insufficient** to create an engine speed for the limp home operation from other throttle valve positions that are sufficient to do the same. In general, each engine has its own threshold of actual throttle valve position  $\theta_{rp}$ . For example, the threshold of actual throttle valve position  $\theta_{rp}$  for a relatively large size two stroke engine is approximately 20 degrees.

(Emphasis added).

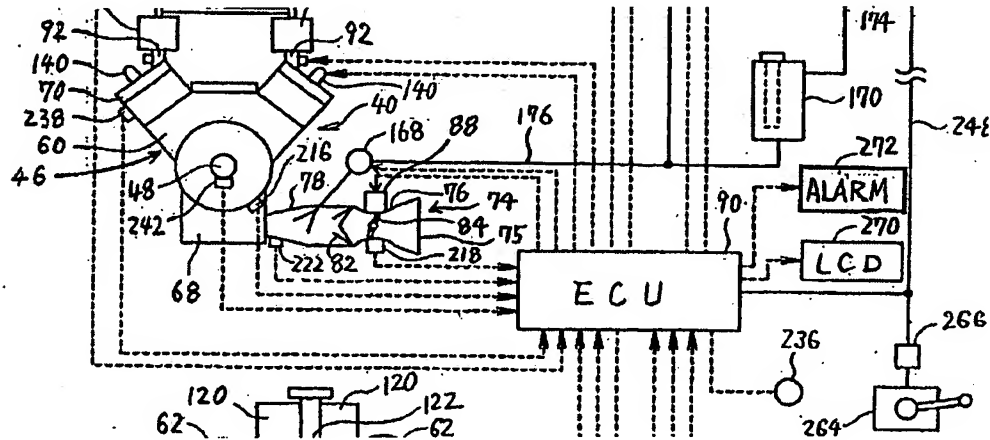
Applicants submit that in light of at least this disclosure in the present Application, one of ordinary skill in the art would understand that one way to determine if the air supply is insufficient is to determine if the throttle valve position is insufficient to provide a minimum level of performance. In the non-limiting embodiment of paragraph [00156], the throttle valve position  $\theta_{rk}$  is compared with a preset threshold of actual throttle valve position  $\theta_{rp}$  to determine if the air amount is **insufficient** to create an engine speed for the limp home operation. The specification also discloses that the “throttle valve 84 is a butterfly type and is pivotally journaled on the throttle body 76 to regulate an amount of the air. That is, the **air amount moving through the throttle body 76** varies in accordance with an angular position or an opening degree of each throttle valve 84.” Paragraph [0061] of the present Application (Emphasis added).

Thus, Applicants submit that the present specification fully supports Claims 6-13 and 29-33.

#### Drawing Objections

The drawings stand objected to for failing to illustrate a “control device to detect a first intake device and a secondary intake device.” Page 2 of the outstanding Office Action. With respect to the recitations in the claims directed to a control device for detecting the

position of the first intake device, Applicants respectfully direct the Examiner to Figure 1 (reproduced below) which shows an ECU 90 connected to a throttle valve position sensor 218.



However, with respect to the portion of the present objection directed to “a control to detect a . . . secondary intake device,” Applicants respectfully point out that none of the pending claims include such a recitation. Thus, Applicants submit that there is no basis for requiring that the drawings illustrate a control device “for detecting the secondary intake device.”

### CONCLUSION

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action are inapplicable to the present claims. Accordingly, early issuance of a Notice of Allowance is most earnestly solicited.

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claims in condition for immediate allowance. Nevertheless, if any

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undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicants' attorney in order to resolve such issue promptly.

Respectfully submitted,

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